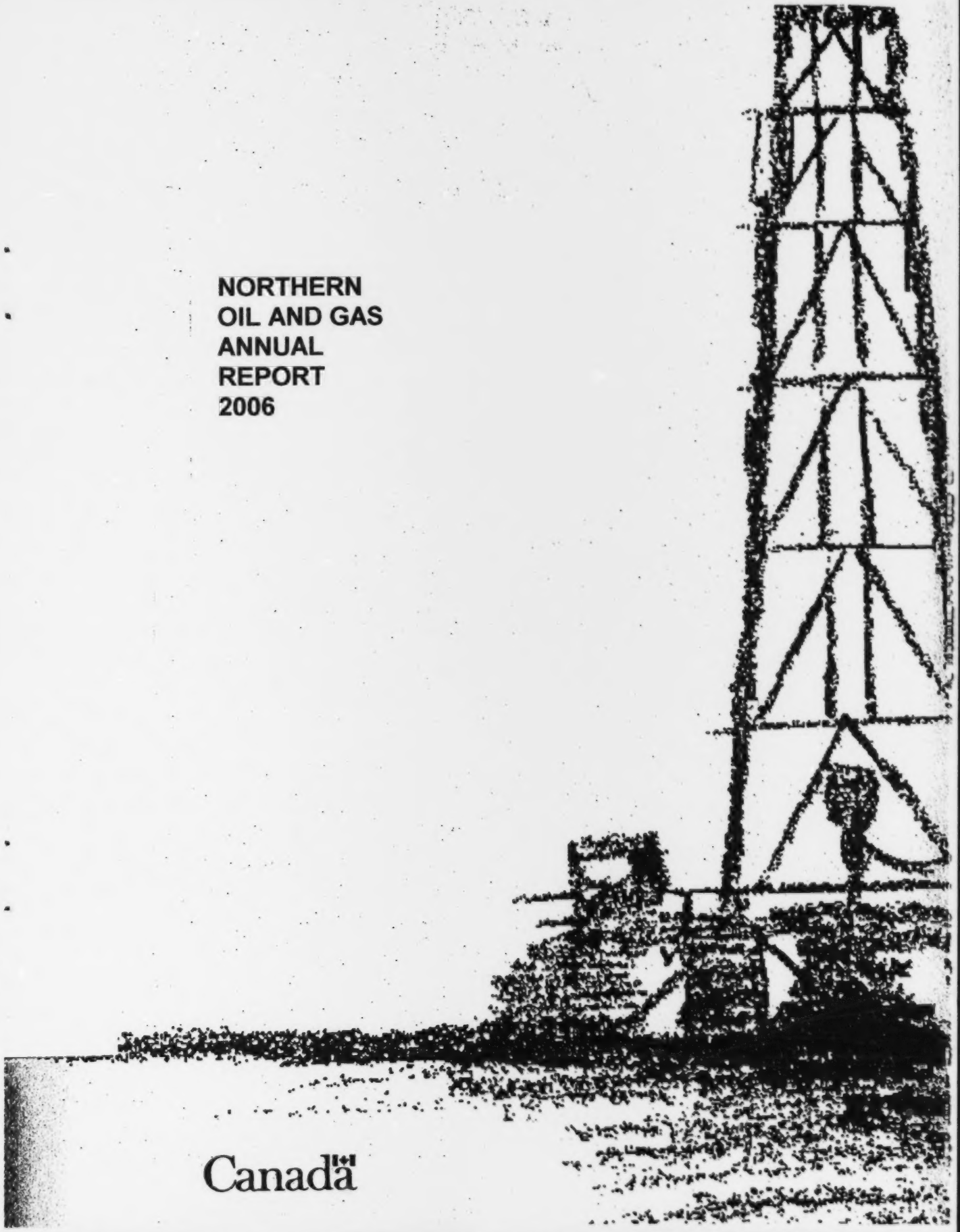
NORTHERN OIL AND GAS ANNUAL REPORT 2006



Canada

Northern Oil and Gas Annual Report 2006

The management of oil and gas resources on Crown lands north of latitude 60° N in the Northwest Territories, Nunavut and the northern offshore is a federal responsibility carried out by the Northern Oil and Gas Branch of Indian and Northern Affairs Canada.

Petroleum resource management on Crown lands is exercised under federal legislation. The *Canada Petroleum Resources Act* and its regulations govern the granting and administration of Crown exploration and production rights and set the royalty regime. The *Canada Oil and Gas Operations Act* governs the regulation of petroleum operations and associated benefits requirements. Land, royalty and benefit matters are managed by the department on behalf of the Minister of Indian Affairs and Northern Development while the National Energy Board takes the lead role in approval of operations.

Information on the northern oil and gas regime may be found on the web at: http://www.ainc-inac.gc.ca/oil/

Affaires indiennes et du Nord Canada
Indian and Northern Affairs Canada

Canada

Published under the authority of the
Minister of Indian Affairs and Northern
Development and Federal Interlocutor for
Métis and Non-Status Indians
Ottawa, 2007
www.ainc-inac.gc.ca
1-800-567-9604
TTY only 1-866-553-0554

QS-8509-070-EE-A1
Catalogue No. R71-47/2007E
ISBN 978-0-662-45540-0

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Cette publication est aussi disponible en français sous le titre :
Pétrole et gaz du Nord – Rapport annuel 2006

2007-03937/

Message from the Honourable Jim Prentice, P.C., M.P.
Minister of Indian Affairs and Northern Development and
Federal Interlocutor for Métis and Non-Status Indians

The North's rich endowment of energy resources presents an opportunity to enhance the livelihoods of Northerners and Canadians. Canada's New Government is working closely with a broad spectrum of Northerners—including Aboriginal governments, territorial governments, and regulatory boards—and industry stakeholders to realize this opportunity.

Together, we are finding ways to harness these resources to provide maximum benefits to the territories in a way that is environmentally sustainable, economically feasible and socially beneficial.

In 2006, we witnessed sustained interest in the take up of lands for exploration by industry in the Mackenzie Delta and Beaufort Sea regions. This interest points to large undiscovered energy resource potential in the North—a significant source of clean energy.

Of course, one of the main catalysts for the petroleum sector's interest in the North continues to be the unprecedented Mackenzie Gas Project. I am pleased to report progress has been made in a number of areas of the Project over the last year. Canada has been working to ensure an effective and efficient regulatory review process is in place for the project; consulting with Aboriginal groups who may be affected; implementing the legislation for the $500 million Mackenzie Gas Project Impacts Fund; and participating in the National Energy Board hearings and the Joint Review Panel environmental assessment hearings, which are soon coming to completion.

This type of effort and diligence ensures that if projects such as the Mackenzie Gas Project prove to be economically feasible and satisfy environmental and regulatory requirements, Canada will be well-placed to do its part to support them.

I invite you to consult this report for further details on the exploration and development of Canada's northern oil and gas resources over the past year.

In accordance with section 109 of the *Canadian Petroleum Resources Act*, I am pleased to table before Parliament this annual report on the administration of oil and gas lands in the Northwest Territories, Nunavut and the northern offshore for the year ending December 31, 2006.

May 4, 2007

Canada's Frontier Lands

Area under the responsibility of the Minister of Indian and Northern Affairs Canada

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NORTHERN OIL AND GAS

Introduction

Canada's North represents an important proportion of Canada's undeveloped oil and gas potential. Some petroleum basins such as the Mackenzie Delta have seen significant exploration and already have a good inventory of discoveries. Many other basins of Canada's Arctic continental shelf, including the Mackenzie Valley of the Northwest Territories, and much of the high arctic and eastern arctic offshore remain lightly explored and hold large potential for many new discoveries of both gas and oil. The variety of geology promises opportunity for a spectrum of investors – from small domestic companies interested in onshore exploration for incremental gas or oil pools to major strategic opportunities for international companies.

Oil and gas exploration has a long history in the Canadian North, dating back to the discovery oil well drilled at Norman Wells in 1920. The late 1940s and 1950s saw increased exploration in the southern Northwest Territories followed by exploration throughout the North in the period 1960 to 1985, activity stimulated by the "oil price shock" of 1974 and concerns for domestic supply.

Current interest in the North dates from the mid-1990s. Oil and gas exploration and investment began to flow North in 1995 with the issuance of new exploration licences by the Crown in the southern Northwest Territories, closely followed by the central Mackenzie Valley. In 1999 and 2000 companies acquired exploration rights to lands across much of the Mackenzie Delta and adjacent offshore. Subsequently, annual calls to industry by the Department for Nomination and Bid for new exploration lands in the central Mackenzie Valley and Mackenzie Delta- Beaufort Sea have sustained the uptake of new exploration lands. This in turn has been followed by investment in exploration activities such as seismic prospecting and exploratory drilling.

Currently some 13 oil and gas companies are active by exploring in the north. These include major international oil companies as well as a range of small to medium domestic enterprises. Of particular note in 2006 was the entry of Talisman Energy into central Mackenzie Valley exploration, and the acquisition by Paramount Resources of Chevron and BP's interests in certain exploration lands in the Mackenzie Delta.

In 2006, oil and gas leasing was active in the central Mackenzie Valley and in the Beaufort Sea - Mackenzie Delta regions. Two new exploration licences were issued in response to the annual Mackenzie Delta-Beaufort Sea Call for Bids, and six new licences for the Central Mackenzie Call. This augurs well for exploration activities in these areas: in particular, the Great Bear Basin of the central Mackenzie Valley which has previously been virtually unexplored has seen the uptake of four additional new Exploration Licences.

In the southern Northwest Territories exploration licences issued in the mid-1990s have terminated. In 2006, a limited opportunity to acquire new exploration rights in a small part of the southern Northwest Territories near Fort Liard was not taken up by industry. The region saw no exploration in 2006 for the second year in a row, although development operations continued on several producing gas fields.

Companies continue to maintain a watching brief on the High Arctic: for the fifth consecutive year, the invitation to nominate parcels in the Arctic islands of Nunavut was not taken up by companies.

Given the high potential of Canada's Arctic for both oil and gas, continuing investment in new exploration can be a source of sustainable long term economic growth. However, much is contingent on the commitment to build the Mackenzie Gas Project (MGP). The potential of the central Mackenzie Valley, Delta and Beaufort Sea, and perhaps further afield depends on the realization of infrastructure to export petroleum to southern markets: a Mackenzie Valley gas pipeline would be a key element of such infrastructure.

The MGP comprises development of three anchor fields in the Mackenzie Delta, construction of gathering and processing facilities, and a 1200 kilometre gas transmission pipeline to Alberta. Initially, production would be initially from the Imperial Oil's Taglu, ConocoPhillips' Parsons Lake and Shell Canada's Niglintgak gas fields in the Mackenzie Delta. Throughout 2006, the MGP was undergoing regulatory hearings for facilities before the National Energy Board, and for environmental assessment before the Joint Review Panel.

Exploration drilling dropped to low levels in 2006: only one well was drilled in the Inuvialuit Settlement Region, and two in the Sahtu region of the central Mackenzie Valley. Despite the low number, the companies indicated that the results of these wells were encouraging. Devon Canada's offshore well Paktoa C-60 in the shallow coastal waters of the Beaufort Sea encountered gas and oil but statements by company officials suggest that amounts discovered were insufficient to give the needed economic impetus to develop. In the central Mackenzie Valley, Husky and partners continued to explore the oil and gas play indicated by their announced discovery at Summit Creek B-44 the previous year.

At year end, six fields were in production in the Northwest Territories. No fields were producing from Nunavut or offshore Arctic waters. Of the producing fields, three gas fields and one oil and gas field are located in the southern Northwest Territories, the Norman Wells oil field is in the central Mackenzie Valley, and the Ikhil gas field is on Inuvialuit private lands in the Mackenzie Delta.

Oil and Gas Resources

Canada's Northwest Territories, Nunavut, and Arctic Offshore hold an estimated 33 percent of Canada's remaining conventionally recoverable resources of natural gas and 25 percent of remaining recoverable light crude oil (*Drummond Consulting, 2002 – unpublished report* for this any other resource numbers except where otherwise specified). Potential natural gas resources are roughly split between the Northwest Territories (2.3×10^{12} m^3 or 82 trillion cubic feet – tcf) and Nunavut (2.0×10^{12} m^3 or 71 tcf). These numbers include the portion lying beneath offshore waters adjacent to the Territories. The Northwest Territories has an ultimate potential for crude oil estimated at 0.9×10^9 m^3 (5.7 billion barrels) and Nunavut has a potential of 0.43×10^9 m^3 (2.7 billion barrels).

The most accessible of these potential resources lie between the border with the provinces at 60 degrees North (60°N) and the Beaufort Sea in a broad corridor running between the Rocky Mountains and the Canadian Shield. This region, comprising much of the Northwest Territories and adjacent Arctic offshore, is estimated to contain 49 percent of the recoverable gas and 58 percent of the recoverable oil in northern Canada, with the Beaufort Sea-Mackenzie Delta Basin by far the largest potential contributor.

North of 60, aggregate production from fields in the southern Northwest Territories currently represents all gas exported south into the pipeline systems of Alberta and British Columbia. Ninety-six percent of oil production comes from the Norman Wells oil field in the central Mackenzie Valley. In the Beaufort Sea-Mackenzie Delta Basin, major gas fields at Taglu and Parsons Lake, together with the large Niglintgak field are proposed for development by the MGP. Combined resources in these fields are estimated by the proponents of the MGP at (161 x 10^9 m^3 (5.7 tcf) (Imperial Oil Ventures Limited, 2004; *Application to the National Energy Board for Approval of the Mackenzie Valley Pipeline; Volume II Economics, Tolls and Tarifs; Gas Supply Study, section 4.1.*)

Some 50 other existing discoveries in this basin may have potential for subsequent development, including Amauligak, a major offshore discovery of both oil and gas. Several other fields await declaration as significant discoveries by the National Energy Board based on the results of recent exploratory drilling, and numerous others await discovery. Other developments which may be induced by the MGP are gas resources in the central Mackenzie Valley which could access a Mackenzie Valley pipeline by means of a short lateral pipeline.

Although not currently under consideration for conventional development because they are so remote, discovered gas resources in the Arctic Islands are comparable to those in the Beaufort Sea-Mackenzie Delta region. The most promising discoveries are those in the Sverdrup Basin, where past exploration efforts have proven the existence of major gas fields at Drake Point and nearby Hecla with combined resources of 241 x 10^9 m^3 (8.5 tcf). Significant oil discoveries and large unexplored oil potential is also present in this vast region of diverse and varied geology.

Also of potential future interest for development are non-conventional hydrocarbons in the North. These include non-conventional gas in the form of Gas from Coal, and large accumulations of methane hydrates beneath the Mackenzie Delta.

Table 1: Discovered Resource Inventory

Region	Crude Oil 10^6 m^3	Million barrels	Natural gas 10^9 m^3	Trillion cubic feet
Northwest Territories	70.5	(443)	178.3	(6.3)
Nunavut	0.9	(6)	190.7	(6.7)
Arctic Offshore	193.0	(1214)	506.5	(17.9)
Total	264.4	(1663)	875.5	(30.9)

Compiled and integrated from several published sources which may underestimate or overestimate actual field resources

Table 2: Commodity prices

	December 2005	December 2006	Average 2006
Oil - C$ per m^3 (Average at Edmonton)	427.42	431.63	461.17
Gas - C$ per GJ (Average AECO)	10.39	7.55	6.79

Sources: Natural Resources Canada

OIL AND GAS MANAGEMENT

Rights Issuance

The department provides industry with an annual opportunity to obtain exploration rights in the Northwest Territories, Nunavut and the northern offshore. The exploration rights are issued pursuant to the *Canada Petroleum Resources Act*.

A Call for Nominations precedes each Call for Bids. The Call for Nominations enables industry to specify blocks of land of interest for subsequent inclusion in a Call for Bids. Calls for Bids are in effect for the statutory minimum of 120 days. Crown rights are issued pursuant to an open, competitive bidding process. A single bid evaluation criterion - currently the total expenditure that a bidder would spend on exploration of the land block - is used to determine the successful bidder who is issued an Exploration Licence of up to nine years. The successful bidder is required to spend the dollar value of the proposed work during the first four or five years of the licence and drill one well during this first period.

In accordance with the provisions of comprehensive land claim settlement agreements, the Department seeks the views and support of Aboriginal communities and organizations prior to rights issuance on the terms and conditions of the issuance and related matters. The Department is also working towards establishing measures that would meet the needs and provide economic opportunities for those areas without a land claim settlement, primarily in the southern Northwest Territories.

In recent years, the Government of Canada and the Northwest Territories Government approved the Protected Areas Strategy (PAS) for the Northwest Territories, to conserve the biological diversity and associated natural and cultural resources in the Northwest Territories. During consultations with Aboriginal groups on rights issuance, a review is also completed to ensure that lands identified through the PAS process are not open for nominations.

In November and December 2005, two Calls for Nominations closed with two parcels nominated in the Beaufort Sea/Mackenzie Delta area and six parcels nominated in the central Mackenzie Valley. Although a Call for Nominations was issued for the Arctic Island of Nunavut, none were received.

All nominated parcels were included in subsequent Calls for Bids. The Beaufort Sea/Mackenzie Delta Call for Bids, which closed on May 2, 2006, resulted in the issuance of two Exploration Licences (EL434 and EL435) covering 156,547 hectares and totaling $12,930,332 of work expenditures. The Central Mackenzie Valley Call for Bids, which closed on May 10, 2006, resulted in the issuance of six new Exploration Licences (ELs 436 - 441) covering 516,673 hectares and totaling $17,675,000 of work expenditures.

In August 2006, a Call for Nominations was launched for the Fort Liard area in the southern Northwest Territories. The terms and conditions of the Call were developed in collaboration with the Acho Dene Koe First Nation in Fort Liard. The Call closed on September 15, 2006 and no nominations were received.

In November 2006, a Call for Nominations was issued for the central Mackenzie Valley. The Call closed on December 13, 2006 with four parcels nominated. These were subsequently included in a Call for Bids issued in early January 2007.

Interests Issued in 2006

In May 2006, eight new Exploration Licences were issued as a result of the successful Call for Bids. There were two in the Beaufort Sea/Mackenzie Delta and these include: EL434 to Encana Corporation, Anadarko Canada Corporation, and ConocoPhillips Canada Resources Corp.; and EL435 to Shell Canada Limited. The remaining six were issued in the central Mackenzie Valley: EL436 to EL439 to Talisman Energy Inc, and Devon ARL Corporation; EL440 to Paramount Resources Ltd.; and EL441 to Husky Oil Operations Limited, Northrock Resources Ltd., EOG Resources Canada Inc., International Frontier Resources Corporation and Pacific Rodera Energy Inc.

Although two significant discovery declarations were made by the National Energy Board, no Significant Discovery Licences were issued in 2006 nor any production licences.

During 2006, two Exploration Licences terminated, one by expiry and one by surrender. One licence was partially surrendered.

Significant Discovery, Commercial Discovery and Development Plan approvals by the National Energy Board

Declarations of significant and commercial discovery by the National Energy Board are the basis for the issuance of significant discovery licences and production licences respectively under *the Canada Petroleum Resources Act*.

The Board issued two significant discovery declarations during 2006: to Chevron Canada Limited in respect of the Chevron et al. Langley K-30 well on Mackenzie Delta Exploration Licence EL394; and to Encana for the Encana Umiak N-05 well on EL384, also on the Mackenzie Delta.

The Board also received two significant discovery declaration applications during the calendar year 2006. These were for the Husky et al Stewart Creek D-57 well on EL397 in the central Mackenzie Valley; and for the Langley K-30 well, subsequently declared.

The Board also continues to have under consideration a significant discovery declaration application for Encana's Umiak N-16 well on the Mackenzie Delta.

No commercial discovery declaration or development plan applications were received or approved during 2006.

Table 3: Exploration licences issued as result of calls for bids since 1996

Region	Number of Licences	Date issued	Licences term (periods)-in years
Southern NWT (Fort Liard)	4	April 1996	7 (4+3)
Central Mackenzie Valley	7	May 1997	8 (4+4)
	6	Aug. 2000	8 (4+4)
	5	Sept. 2001	8 (4+4)
	1	May 2003	8 (4+4)
	4	June 2004	8 (4+4)
	6	May 2005	8 (4+4)
	6	May 2006	8 (4+4)
Beaufort Sea / Mackenzie Delta	2	Jan. 1997	9 (5+4)
	4	Sept. 1999	9 (5+4)
	6	Aug. 2000	9 (5+4)
	2	May 2002	9 (5+4)
	1	June 2004	9 (5+4)
	2	May 2006	9 (5+4)

Table 4: Land disposition (in hectares) as of December 31, 2006

Region	Exploration Licence	Production Licence	Significant Discovery Licence	Total
Arctic Islands	0	1,224	332,882	334,106
Eastern Arctic Offshore	0	0	11,184	873,684 [1*]
Hudson Bay [4]	0	0	0	126,376 [2*]
Beaufort Sea	829,361	0	188,068	1,017,429
Mackenzie Delta	426,629	2,506	109,937	539,072
Mackenzie Valley	1,745,940	32,842	88,938	1,896,512 [3*]

* Former Permits and/or Pioneer Leases

1 Includes 862,500 hectares in restricted area/under former rights

2 Includes 126,376 hectares in restricted area/under former rights

3 Includes 28,792 hectares under former rights

4 Permits under the administration of the Minister of Indian Affairs and Northern Development

Table 5: Land disposition by interest type as of December 31, 2006

Region	Exploration Licence	Production Licence	Significant Discovery Licence	Former Rights [1]
Arctic Islands	0	1	20	0
Eastern Arctic Offshore	0	0	1	30
Hudson Bay	0	0	0	8 [2]
Beaufort Sea	5	1	31	0
Mackenzie Delta	6	1[3]	34	0
Mackenzie Valley	21	21	32	17

1 Permits and/or Pioneer Leases under former legislations
2 Permits under the administration of the Minister of Indian Affairs and Northern Development
3 On Inuvialuit lands

Administration of Interests

Exploration licences

There were 32 Exploration Licences active at the end of 2006. This includes those Exploration Licences for which Significant Discovery Licences have been applied for pending the National Energy Board's decision.

Each Exploration Licence issued as a result of a Call for Bids requires the interest holder to submit 25 percent of the work expenditure bid as a deposit to ensure that the proponent fulfills the requirement to drill a well within Period 1 (within the 1st four or 5 years). During the remaining term of the licence (Period 2), rentals are paid.

Both the work deposit required for Period 1 and the rentals in Period 2 are refundable upon completion and approval of the work undertaken on the licence. Administration of the deposits includes the application of allowable expenditures submitted as exploratory work is completed. Deposit administration is ongoing throughout the year as new deposits are received for the rentals due in Period 2 and / or amendments are made with respect to those already in the system.

Table 6: Exploration Licences (page 1 of 2)

Licence Number	Area (ha)	Representative [1]	Issue date (y.m.d)	Well to be drilled by (y.m.d)		Expiry date (y.m.d)	Work bid amount (in $)
Beaufort Sea/Mackenzie Delta							
EL317 [2]	175,810	Talisman Energy Inc.	1986.10.05	n/a			n/a
EL329 [2]	349,981	BP Canada Energy Resources	1987.09.05	n/a			n/a
EL384 [3]	53,961	Encana Corporation	1997.01.06	2006.01.05	✓	2006.01.05	-
EL394	73,155	Chevron Canada Limited	1999.09.18	2004.09.17	✓	2008.09.17	42,375,000.00
EL406	72,523	Petro-Canada	2000.08.15	2005.08.14	✓	2009.08.14	81,876,595.88
EL418	37,436	Devon ARL Corporation	2002.05.14	2007.05.13		2011.05.13	1,100,000.00
EL419 [4]	72,311	Petro-Canada	2002.04.18	2004.09.17	✓	2008.09.17	105,293,760.00
EL420 [4]	338,469	Devon ARL Corporation	2002.08.15	2005.08.15		2009.08.14	224,069,655.56
EL427-404 [4] Area "A"	73,608	Chevron Canada Limited	2004.09.20	2005.08.14	✓	2009.08.14	151,758,288.00
EL427-417 [4] Area "B"	18,912	Chevron Canada Limited	2004.09.20	2007.05.13		2011.05.13	
EL427-422 [4] Area "C"	56,057	Chevron Canada Limited	2004.09.20	2009.06.07	✓	2013.06.07	
EL434	56,605	EnCana Corporation	2006.05.03	2011.05.02		2015.05.03	40,169,000.00
EL435	99,942	Shell Canada Limited	2006.05.03	2011.05.02		2015.05.03	11,552,331.50
Mainland – Central Mackenzie Valley							
EL397	134,565	Husky Oil Operations Limited	2000.08.01	2004.07.31	✓	2008.07.31	16,580,000.00
EL399	120,496	Apache Canada Ltd.	2000.08.01	2004.07.31	✓	2008.07.31	8,400,000.00
EL413	80,464	Dual Exploration Inc.	2001.09.18	2005.09.17	✓	2009.09.17	2,000,000.00
EL414	84,880	Apache Canada Ltd.	2001.09.18	2005.09.17	✓	2009.09.17	10,750,000.00
EL421	79,668	Canadian Forest Oil Ltd.	2003.05.28	2007.05.28		2011.05.28	1,108,650.00
EL423	90,632	Husky Oil Operations Limited	2004.06.08	2008.06.07		2012.06.07	24,800,000.00

Table 6: Exploration Licences (page 2 of 2)

Licence Number	Area (ha)	Representative [1]	Issue date (y.m.d)	Well to be drilled by (y.m.d)		Expiry date (y.m.d)	Work bid amount (in $)
EL424	80,608	Paramount Resources Ltd.	2004.06.08	2008.06.07		2012.06.07	8,100,000.00
EL425	27,230	Petro-Canada	2004.06.08	2008.06.07		2012.06.07	22,000,000.00
EL426	36,728	Paramount Resources Ltd.	2004.06.08	2008.06.07		2012.06.07	8,100,000.00
EL428	81,008	Apache Canada Ltd.	2005.05.18	2009.05.17		2013.05.18	3,200,000.00
EL429	82,880	BG Canada Exploration and Production, Inc.	2005.05.18	2009.05.17		2013.05.18	12,500,000.00
EL430	51,637	Paramount Resources Ltd.	2005.05.18	2009.05.17		2013.05.18	3,510,000.00
EL431	78,516	Petro-Canada	2005.05.18	2009.05.17		2013.05.18	2,787,792.16
EL432	64,048	BG Canada Exploration and Production, Inc.	2005.05.18	2009.05.17		2013.05.18	4,000,000.00
EL433	88,004	Petro-Canada	2005.05.18	2009.05.17		2013.05.18	32,128,044.96
EL436	84,353	Talisman Energy Inc.	2006.05.10	2010.05.09		2014.05.10	12,150,000.00
EL437	85,993	Talisman Energy Inc.	2006.05.10	2010.05.09		2014.05.10	32,775,000.00
EL438	87,183	Talisman Energy Inc.	2006.05.10	2010.05.09		2014.05.10	3,850,000.00
EL439	82,820	Talisman Energy Inc.	2006.05.10	2010.05.09		2014.05.10	5,125,000.00
EL440	87,872	Paramount Resources Ltd.	2006.05.10	2010.05.09		2014.05.10	6,300,000.00
EL441	88,452	Husky Oil Operations Limited	2006.05.10	2010.05.09		2014.05.10	10,500,000.00

1 These representatives are current to date of draft i.e. December 2006

2 Under work prohibition orders.

3 Land exchange for Cape Bathurst former permits.

4 Consolidation per s. 25(3) of the *Canada Petroleum Resources Act*
Note that on consolidated licences, one well may not be sufficient to hold all lands in the licence, depending on the terms and conditions.

√ Well requirement met as of year end. The drilling of one exploratory or delineation well prior to the end of Period 1 of the term is a condition precedent to obtaining tenure to Period 2. Other drilling requirements may exist for licences issued in exchange of former permits.

Security deposits being administered as of December 31, 2006

Refundable work deposits of Period 1 (refunded at $1 for each $4 spent) = $112,412,179
Refundable rentals of Period 2 (refunded at $1 for each $1 spent) = $6,459,093

Benefits

Section 21 of the *Canada Petroleum Resources Act* requires a benefit plan for any work or activity on any frontier lands. For example, when exploration and development are undertaken in the Northwest Territories, Nunavut and the northern offshore, a proponent must ensure that full and fair opportunity is provided to Northerners and other Canadians for employment, training and the supply of goods and services. A proponent will generally offer these opportunities to communities in close proximity to a project first, before providing them to regions outside the project area. The seasonal nature of employment in the oil and gas industry's northern exploration activities fits well with the dual traditional/wage economy of many communities.

Ongoing exploration and development up and down the Mackenzie Valley has continued to provide employment, training and business opportunities for Northerners and other Canadians. In the southern Mackenzie Valley, oil and gas production in the Cameron Hills area and gas production near Fort Liard generates real opportunities for community residents as well as other Northerners.

Travelling north to the central Mackenzie Valley and the Mackenzie Delta, increased oil and gas exploration has also initiated a host of opportunities for qualified Northern and Canadian residents and businesses. Looking ahead, prospects for renewed interest and future rights issuance in the Deline District and Dehcho Region hold promise for ongoing benefits opportunities throughout the North and across Canada.

The Northern Oil and Gas Branch works closely with the Petroleum Development Division in DIAND's Northwest Territories Regional Office in Yellowknife. Since 2001, this Division has had the lead responsibility for the administration of benefits plans for exploration and development activities in the Northwest Territories. The Division maintains open communications with northern First Nations and works to better understand their economic issues and concerns while increasing public understanding of the *Canada Oil and Gas Operations Act* benefits plan requirements. The Division continues to manage the annual rights issuance discussions with northern communities.

Environmental Considerations

Consultations

As part of the Call for Nominations process, consultations are held with northern Aboriginal groups to identify areas of environmental sensitivity, and those of special interest for cultural and spiritual reasons. Input is also sought from other groups with resource management responsibilities, such as those tasked with developing the Protected Areas Strategy, Marine Protected Areas, Migratory Bird Sanctuaries and land use plans, such as the draft Sahtu and Dehcho Land Use Plans. INAC also consults with other federal and territorial governments, and agencies. Environmental considerations play an important role when issuing land use permits, water licences, and all work authorizations. The terms and conditions associated with a Call for Nominations and Bids reflect the results of this consultation process.

Environmental Studies Research Funds (ESRF)

Under the *Canada Petroleum Resources Act*, the ESRF finances environmental and social studies related to the exploration and development of oil and gas resources on frontier lands. Responding to the resurgence of oil and gas activity in the North, the ESRF Management Board funded their northern study program for 2006 through levies agreed by industry representatives and subsequently approved by the Minister. The budget approved for the North by the ESRF Management Board for 2006 amounted to $407,200. 2006 was the final year of a four year study to assess the potential effects of near shore exploration activity on ringed and bearded seals. In addition, work was initiated on a project to establish a sumps database, a traditional knowledge manual for environmental assessment, and a review of lessons learned from the Ikhil gas development and pipeline regulatory and environmental process. Work continued on mitigation of the effects of seismic energy in shallow water environments.

EXPLORATION ACTIVITY IN THE NORTH

Northern Operations

Expenditures on oil and gas activities are estimated at $174 million for 2006, compared with $396 million in the previous year. The estimate includes costs for exploration, delineation and development drilling; well completion and abandonment; and for geophysical and geological programs. New well costs amounted to $120 million and re-entries of existing wells amounted to $11 million with the balance of expenditures largely taken up by seismic surveys. New drilling was down, with only six wells,

compared with 13 in 2005. Only three of these were classified as exploratory.

Exploration drilling levels were lower than in 2005. Although no wells were drilled in the Mackenzie delta, this was partly compensated for by an offshore well in the Beaufort Sea. Only two wells were drilled in the central Mackenzie Valley, both in the Tulita District of the Sahtu, and, as in the previous year, there was no exploratory drilling in the southern Northwest Territories. In this region, activity focused on delineation and development drilling at Cameron Hills (three wells). Four wells were re-entered for various operations, including one abandonment.

With fewer wells drilled, total metres drilled in the Northwest Territories (including both exploratory and development wells) dropped to 14,509 m in 2006 from 24,893 m in 2005. There were no oil and gas drilling operations in Nunavut or the eastern Arctic.

In the central Mackenzie Valley, operations this year were focused on the Mackenzie Plain south of the community of Tulita and west of the Mackenzie River. Husky Energy acting as operator with partners Northrock Resources, EOG Resources Canada, Pacific Rodera Energy and International Frontier Resources, drilled two wells; Summit Creek K-44 on EL397, a step-out from their B-44 discovery of the previous year, and the second, Stewart D-57 on Sahtu private land block M-38. In a press release Husky announced the D-57 well as the first successful Cretaceous gas discovery in the central Mackenzie region. (Husky Energy Inc Press Release May 17, 2006)

In March 2006, Devon Canada finished drilling and testing its Paktoa C-60 well, drilled to 2356 metres in 13.2 metres of water, in the Beaufort Sea on EL420. The company has stated that although the Paktoa well encountered hydrocarbons, the well did not meet expectations. Devon plans to apply for a significant discovery licence (*Devon Energy 2006 Annual Report*).

In the southern Northwest Territories, winter well operations commenced in February and ended on April 2. Drilling in the central Mackenzie Valley commenced on January 23 and ended March 28. Drilling operations in the Beaufort Sea ended on March 19.

Fourteen industry geophysical and geological programs were authorized by the National Energy Board in 2006. This total comprised five field seismic acquisition programs totaling an estimated 5483 km of 2-dimensional (2D) in four programs (including one large marine program in the Beaufort Sea), and 1100 km2 of 3D seismic in one program. In addition, one geotechnical program, four geological field parties and four gravity surveys were authorized.

Table 7: Drilling Statistics – 2006

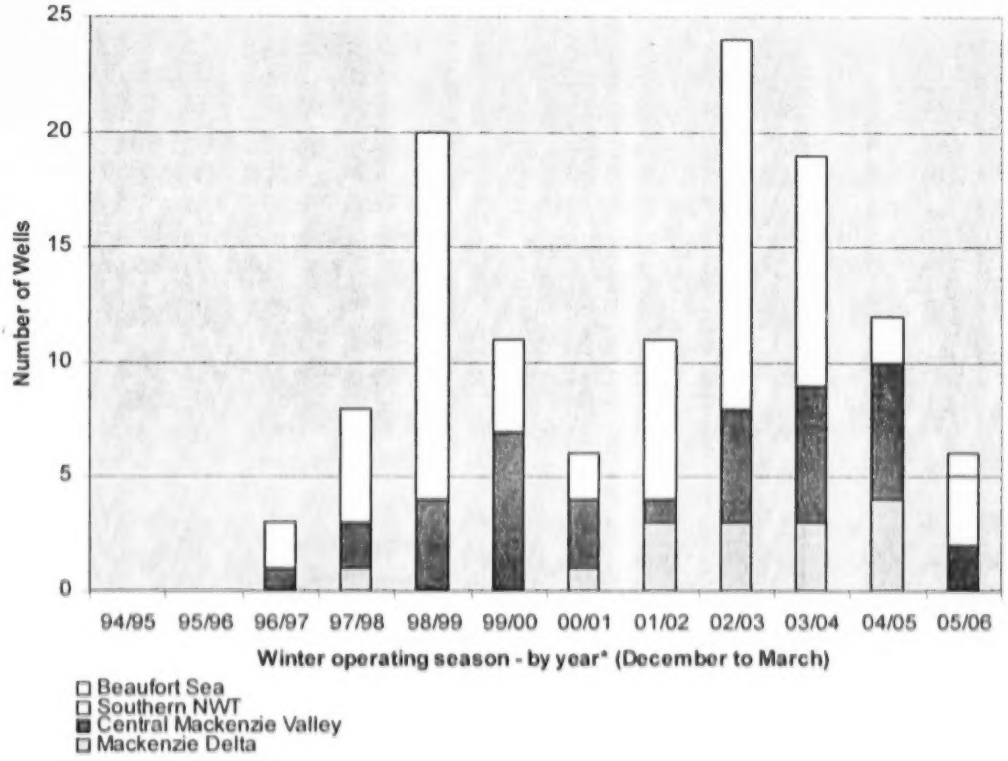
WELL NAME	LAT	LONG	Class[1]	Total depth (m)	Metres drilled in 2006	Well Spud	Rig Released	Well Status[2]	Licence[3]
SOUTHERN TERRITORIES									
PARA ET AL CAMERON J-74	60°03' 38.8"	117°28' 55.7"	P	1465	1465	28-Feb-06	12-Mar-06	P&S	PL-13
PARA ET AL CAMERON E-07	60°06' 19.9"	117°31' 37.5"	P	1457	1457	14-Mar-06	26-Mar-06	P&S	PL-14
PARA ET AL CAMERON 2M-73	60°02' 52.3"	117°29' 31.9"	D	1522	1522	15-Mar-06	20-Mar-06	PR	PL-04
CENTRAL MACKENZIE									
HUSKY ET AL STEWART D-57	64°16' 03.2"	125°26' 05.9"	E	3147	3147	23-Jan-06	23-Mar-06	P&S	M38
HUSKY ET AL SUMMIT CREEK K-44	64°23' 44.8"	125°53' 29.8"	E	3130	3130	31-Jan-06	28-Mar-06	P&S	EL397
BEAUFORT SEA									
DEVON PAKTOA C-60	69°39' 08.9"	136°29' 12.1"	E	2382	787	5-Dec-05	19-Mar-06	P&A	EL420
WELL RE-ENTRIES									
PARA ET AL CAMERON J-74	60°03' 38.8"	117°28' 55.7"	P	1465		21-Mar-06	1-Apr-06	PR	PL-13
PARAMOUNT ET AL FORT LIARD F-36	60°05' 27.5"	123°22' 00.6"	E	2110		20-Feb-06	2-Apr-06	P&S	PL-07
PARAMOUNT ET AL LIARD K-29A	60°28' 41"	123°35' 04.1"	P	3832		25-Jan-06	4-Apr-06	P&S	PL-09
CNRL ET AL NORTH LIARD 3P-66B	60°35' 55.7"	123°41' 25.3"	D	3338		24-Feb-06	5-Mar-06	P&A	PL-10

[1] Class E=exploratory, D=delineation, P=production
[2] Status P&S=plugged and suspended, P&A=plugged and abandoned , PR=production
[3] Licence EL=Exploration Licence, SDL=Significant Discovery Licence, PL=Production Licence, SA=Sahtu Lands

Table 8: Seismic acquisition

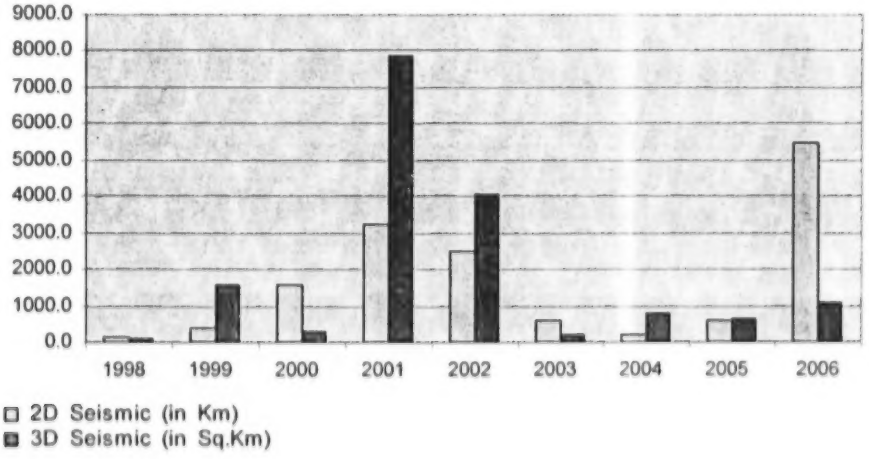
	1999	2000	2001	2002	2003	2004	2005	2006
2D Seismic (in Km)	381.0	1554.0	3251.0	2506.0	586.0	189.0	564.0	5483
3D Seismic (in Sq.Km)	485.0	307.0	7893.0	4060.0	194.0	804.0	635.0	1100

Figure 1: Wells drilled



*Excludes Norman Wells development drilling

Figure 2: Seismic acquisition



DEVELOPMENT AND PRODUCTION

At year-end, six fields were on production in the Northwest Territories. No fields were producing from Nunavut or offshore Arctic waters. Of the producing fields, three gas fields and one oil and gas field (Cameron Hills) are located in the southern Northwest Territories. All are operated by Paramount Resources Ltd. These fields are connected by short trans-border pipelines to connect to the pipeline network in British Columbia for gas fields near Fort Liard, and to Bistcho, Alberta for the Cameron Hills field. The large Norman Wells oil field in the central Mackenzie Valley is the northern anchor for the Enbridge Norman Wells oil pipeline which terminates in Zama, Alberta. The Ikhil gas field on the Mackenzie Delta produces gas through a 50 kilometre pipeline to Inuvik where the gas is used for power generation and heating.

Total natural gas production in the Northwest Territories in 2006 was 318.9 x 10^6 m^3 (11.3 billion cubic feet), a drop of 36 percent over the previous year. This continues the steady decline of aggregate production from fields in the southern Northwest Territories.

Total aggregate oil production was 1082.7 x 10^3 m^3 (6.76 million barrels), virtually the same as in 2005. A small but increasing proportion of total production (6.5 percent) came from Paramount's Cameron Hills field where volumes nearly doubled.

Table 9: Oil and Gas Production

	2001	2002	2003	2004	2005	2006
Oil Production (thousands of m3)						
Norman Wells (G001 - Imperial Oil)	1432.2	1375.4	1254.6	1186.7	1042.6	1012.4
Cameron Hills (G010 - Paramount)	-	1.1	28.5	48.6	47.2	70.3
Total	**1432.2**	**1376.5**	**1283.1**	**1235.3**	**1089.8**	**1082.7**
Gas Production (millions of m3)						
Norman Wells (G001 - Imperial Oil)	130.2	123.3	108.6	103.7	102.4	109.3
Pointed Mountain (G003 - Canadian Forest Oil)	9.1	Shut-in	Shut-in	Shut-in	Shut-in	Shut-in
Ikhil (G005 - AltaGas)	13.2	14.8	15.2	16.1	15.7	15.2
Fort Liard (G-006 -"F-36" - Paramount)	71.8	38.8	16.5	11.2	50.7	29.9
Fort Liard (G007 - "K-29" - Paramount)	1213.6	834.1	680.3	465.4	203.3	59.1
Fort Liard (G008 - "P-66A" - CNRL)	1.8	Shut-in	9.8	Shut-in	Shut-in	Shut-in
Southeast Fort Liard (G009 - "N-01" - Paramount)	33.2	61.9	51.1	48.1	38.8	11.9
Cameron Hills (G010 - Paramount)	-	124.1	104.1*	92.8*	91.3*	93.5
Total	**1472.9**	**1197**	**985.6**	**737.3**	**502.2**	**318.9**

* Adjusted to include gas from the oil battery.

Figure 3: Oil production

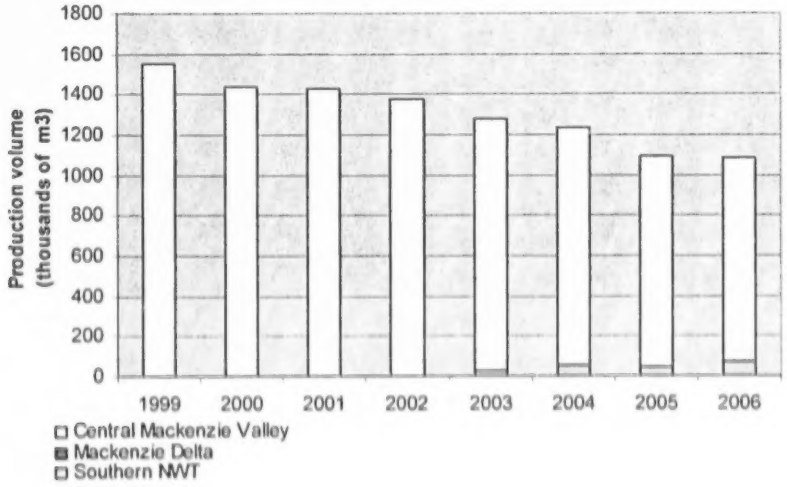


Figure 4: Gas production

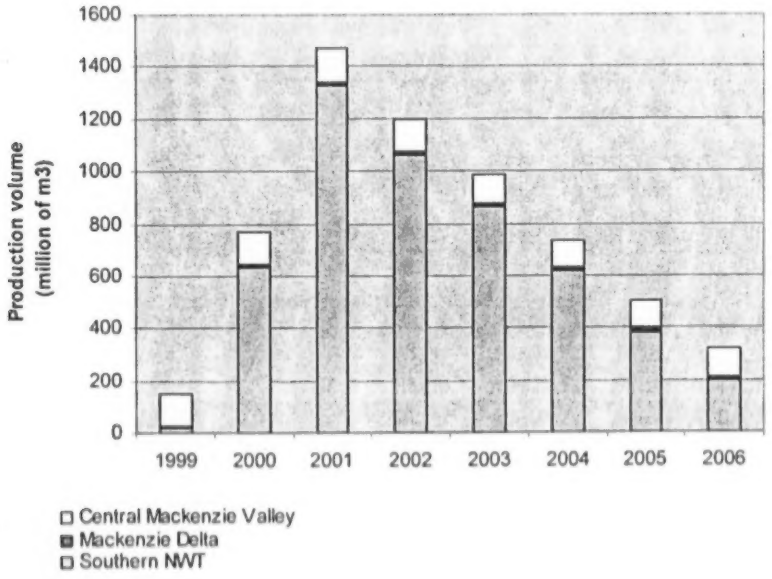
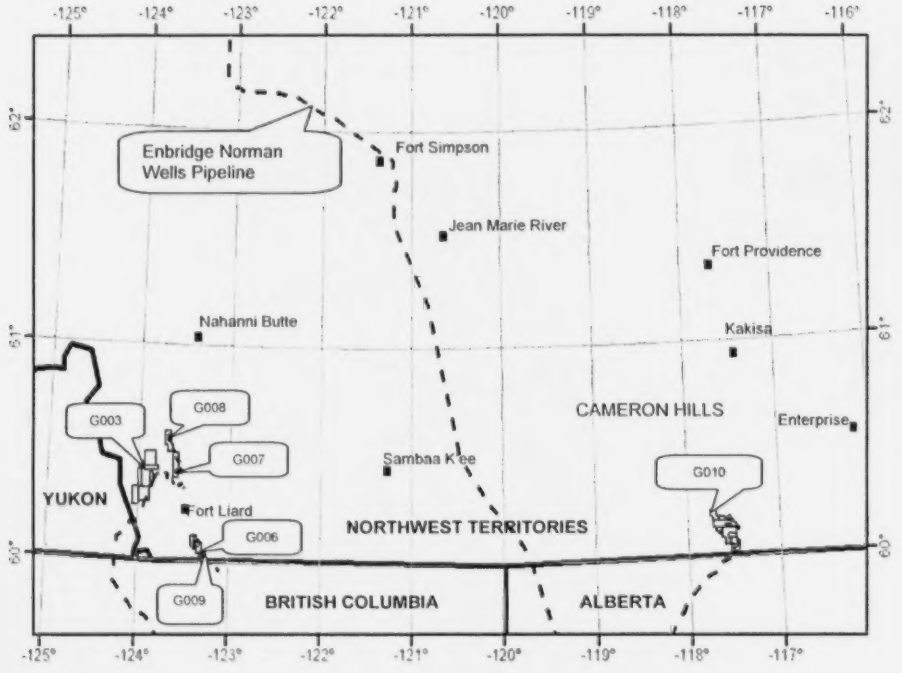


Figure 5: Oil and Gas fields – southern Northwest Territories



Field Code	Field Name	Licences
G003	Pointed Mountain *	PPL 01- 09
G006	Paramount Fort Liard "F-36"	PL 07, PL08
G007	Chevron Fort Liard "K-29"	PL09, PL11
G008	Canadian Natural Resources Limited Fort Liard "P-66A"*	PL10
G009	Paramount Southeast Fort Liard "N-01"	PL12
G010	Paramount Cameron Hills	PL03-05, PL13-18

*Abandoned

ROYALTIES

Royalties paid from northern oil and gas production in the calendar year 2006 were $30,730,046. This 91 percent increase in royalties is mainly attributable to a company that in 2006 re-computed royalty owing for the years 2004 through to 2006.

Table 10: Oil and gas revenues ($)

	2001	2002	2003	2004	2005	2006
Royalty	24,656,709	21,751,369	24,492,180	20,558,915	16,053,210	30,730,046
Rentals	993	2,621	978	61,111	66,500	62,500
Issuance and Registration Fees	12,733	17,800	5,471	8,600	13,500	19,891
Work Forfeitures *	0	2,392,150	954,812	16,933,374	26,228,000	0
Total	24,670,435	24,163,940	25,453,441	37,562,000	42,361,210	30,808,046

* Forfeiture monies are revenues received within the calendar year

Audits and Assessments

Two audits were scheduled to take place during 2006. One audit was completed and an assessment subsequently issued. The second audit is scheduled to be completed in 2007.

Regulatory Review

A project is underway to modernize the *Frontier Lands Petroleum Royalty Regulations* (FLPRR). The project's objectives are to identify areas where the regulations could be amended to better meet today's operating environment, to strengthen royalty accountability and assurance, to improve fairness, and to improve the administrative efficiency of the royalty regime.

Royalty Administration

The development of a new web-based royalty management system (RMS) continued. During 2006 significant progress was made in the redesign of royalty forms, which will be the primary instruments used by industry to submit royalty information to the Crown. Industry representatives have been active participants in the RMS and FLPPR initiatives, both of which are expected to be completed in 2007.

FURTHER INFORMATION

Northern Oil and Gas Branch

Please check our website first at www.ainc-inac.gc.ca/oil

Many sources of information on oil and gas, environmental, and land use matters originate with the Department of Indian Affairs and Northern Development. To obtain specific information, please include the appropriate contact listed in the sources below with the general mailing address for the Department.

Mailing address:

Northern Oil and Gas Branch
Oil and Gas Management Directorate
Department of Indian and Northern Affairs
OTTAWA ON K1A 0H4

Courier only:

Northern Oil and Gas Branch
Oil and Gas Management Directorate
10th Floor, 15/25 Eddy Street
GATINEAU QC K1A 0H4
Telephone: (819) 997-0877
Fax: (819) 953-5828
Internet: http://www.ainc-inac.gc.ca/oil

Information on the resource management regime, calls for nominations and bids, and other related information: Land Tenure – Telephone: (819) 997-0221

Information on registration procedures and regulations, exploration, significant discovery and production licences, transfers, notices, and maps: Rights Administration/Registrar – Telephone (819) 953-8529

Information on northern exploration history and geological / geophysical activities: Senior Petroleum Geologist – Telephone: (819) 953-8722

Information on royalty policy and royalty submissions: Manager, Fiscal Policy and Royalty Administration – Telephone: (819) 953-9488

Information on Benefits Plan requirements associated with new exploration programs on land in the Northwest Territories is available from the department's Northwest Territories Regional Office at the address below. Information for Nunavut and northern offshore is available from the Oil and Gas Management Directorate – Telephone (819) 953-8790.

Petroleum Development and Benefits Division
Northwest Territories Regional Office
Department of Indian and Northern Affairs
4914-50th Street, P.O. Box 1500
YELLOWKNIFE NT X1A 2R3
Telephone: (867) 669-2618 / Fax: (867) 669-2409

Other Sources of Information

Through the offices of the National Energy Board at the address below, information on the following is available

- The Regulatory Support Office has information on exploration, development, production, pipeline transportation, and export.
- The Frontier Information Office provides access to maps, technical information, geological and geophysical reports, well history reports and records.
- The Environmental Directorate provides the Secretariat for the Environmental Studies Research Funds Management Board.

National Energy Board (NEB)
444 Seventh Avenue SW
CALGARY AB T2P 0X8
Telephone: (403) 292-4800
Fax: (403) 292-5503

Geological Survey of Canada Calgary provides public viewing and sampling facilities for cores and samples, and information on wells drilled north of 60°N at its offices at:

Geological Survey of Canada Calgary
3303-33rd Street NW
CALGARY AB T2L 2A7
Telephone: (403) 292-7000
Fax: (403) 292-5377

Information on wells drilled in the Baffin Bay – Davis Strait region is available from:

Iris A. Hardy, Curator National Marine Geosciences Collection
Geological Survey of Canada Atlantic
Core Storage and Laboratory
Bedford Institute of Oceanography
P.O. Box 1006
DARTMOUTH NS B2Y 4A2
Telephone: (902) 426-6127
Fax: (902) 426-4465
Email: ihardy@nrcan-rncan.gc.ca